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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/596,037 | 05/25/2006 | Jeung-Kyun Lee | 2017-082 | 1933 |
| 53706 IPLA P.A. 3580 WILSHIRE BLVD. 17TH FLOOR LOS ANGELES, CA 90010 | 7590 05/01/2009 | | EXAMINER GATES, ERIC ANDREW | |
| | | | ART UNIT 3726 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,037

Applicant(s)

LEE, JEUNG-KYUN

Examiner

ERIC A. GATES

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CI/CC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 5/25/06

DETAILED ACTION

1. This office action is in response to Applicant's initial application filed 25 May 2006.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites "wherein the chuck support member has a length which is less than that of a conventional chuck support member". This limitation is indefinite because it does not make clear what length is required for a chuck support member to be considered conventional, and it does not take into account variations that would be expected for different sized chuck support members used with different sizes of tapping machines. Furthermore, there is no information provided in the specification that would allow one of ordinary skill in the art to make a determination on what length would be considered conventional.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada (U.S. Patent 6,322,298).

8. Regarding claim 1, Wada discloses a master spindle for a tapping machine, comprising: a chuck 21 having a tap T detachably mounted thereto; a chuck support member 19B having the chuck mounted thereto; a spindle bolt 19A fastened to the chuck support member at an upper end thereof; and a bushing nut 20 threadedly

coupled to the spindle bolt and positioned below the chuck support member; wherein the chuck support member has an upper end to which the chuck is mounted and a lower end to which the spindle bolt is fastened, the upper and lower ends being integrally formed with each other (as seen in figure 3).

9. Regarding claim 4, Wada discloses wherein the chuck support member 19B is provided with a fluctuation correcting cap 9B.

10. Regarding claim 5, Wada discloses wherein the fluctuation correcting cap 9B is defined with an opening (top in figure 3) into which the chuck support member 19B is fitted so that a circumferential outer surface of the chuck support member is brought into tight contact with a circumferential inner surface of the fluctuation correcting cap, and has a flange portion (bottom flange in figure 3) which is coupled to the bushing nut 20 by bolts (through holes N in bushing nut); and wherein an O-ring M2 is fitted in the circumferential inner surface of the fluctuation correcting cap adjacent to an upper end of the fluctuation correcting cap (as seen in figure 3), and an oil inlet hole (bottom hole of the cap, allows placement of the nut 20 thereby allowing oil to be fed from the oil storage groove 20D of the nut to the spindle bolt 19A, see column 8, lines 34-48) is defined through the fluctuation correcting cap to communicate with the opening.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wada in view of Robinson (U.S. Patent 2,791,922).
13. Regarding claim 6, Wada discloses the invention substantially as claimed, except Wada does not disclose wherein the chuck support member is defined, below the chuck, with a tap separation hole for easy separation of the tap from the chuck. Robinson teaches the use of a spindle 75 with a chuck portion that comprises an opening 78 for the purpose of using a drift pin or the like to assist in removing a cutting element D from the spindle. Therefore it would have been obvious to one having ordinary skill in the art to have combined the machine of Wada with the removal opening of Robinson in order to have a quick and easy way to remove a tap from the chuck of Wada.
14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wada in view of Fleming (U.S. Patent 6,814,527).
15. Regarding claim 7, Wada discloses wherein the bushing nut 20 has a flange portion which is defined with mounting holes N. Wada does not disclose auxiliary mounting holes. Fleming teaches the mounting of a bushing 20 using two mounting holes located 180 degrees apart (for bolts 59) and two auxiliary mounting holes 90 degrees apart from the mounting holes (for the other two bolts 59) for the purpose of providing a mount that is more stable than one with just two bolts. Therefore it would have been obvious to one having ordinary skill in the art to have combined the machine

of Wada with the four hole/bolt mount of Fleming in order to have a stronger, more stable mount than one with only two bolts.

16. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Womack (U.S. Patent 4,050,835) in view of Wada.

17. Regarding claim 1, Womack discloses a master spindle for a tapping machine, comprising: a chuck 25 having a tap mounted thereto; a chuck support member 24 having the chuck mounted thereto; a spindle bolt 23 fastened to the chuck support member at an upper end 42 thereof; and a bushing nut 36 threadedly coupled to the spindle bolt and positioned below the chuck support member; wherein the chuck support member has an upper end to which the chuck is mounted and a lower end to which the spindle bolt is fastened (as seen in figure 2), the upper and lower ends being integrally formed with each other.

18. Womack does not disclose that the tap is detachably mounted to the chuck. Wada teaches the use of a chuck 21 that has a tap T detachably mounted for the purpose of being able to remove and replace the tap with other taps. Therefore it would have been obvious to one having ordinary skill in the art to have combined the machine of Womack with the removable tap and chuck of Wada in order to have a system that allows for less expensive interchangeable parts.

19. Regarding claim 3, the modified invention of Womack discloses wherein an umbrella-shaped chip cover 74 is provided to the lower end of the chuck support

member 24.

20. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Womack in view of Kameyama et al. (U.S. Patent 5,100,271).

21. Regarding claim 2, Womack discloses the invention substantially as claimed, except Womack does not disclose wherein the chuck support member has a length which is less than that of a conventional chuck support member. Kameyama et al. teaches the use of tool driving units as seen in figures 2 and 10 both utilizing chuck support members 70 for the purpose of chucking a tap 71. However, the chuck support member in figure 2 is seen to have a length which is less than that of figure 10 for the purpose of design choice. Therefore it would have been obvious to one having ordinary skill in the art to have combined the machine of Womack with a shorter chuck support member as taught by Kameyama et al. in order to have a chuck support member that is designed to have lower material costs.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC A. GATES whose telephone number is (571)272-5498. The examiner can normally be reached on Mon-Thurs 8:45 - 6:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric A. Gates/
Examiner, Art Unit 3726
30 April 2009